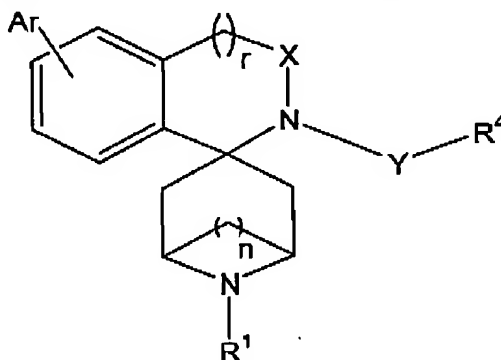


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This listing of claims will replace all prior versions, and listings, of claims in the application (note that amendments are highlighted in **bold**):

**Listing of Claims:**

1. (amended) A compound represented by the structural formula



formula I

or a pharmaceutically acceptable salt or solvate wherein

X is  $-\text{CH}_2-$ ,  $-\text{SO}_2-$ , carbonyl,  $-\text{CHCH}_3$  or  $-\text{C}(\text{CH}_3)_2-$ ;

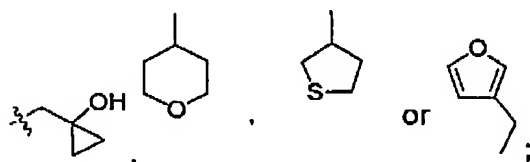
Y is  $-(\text{CR}^2\text{R}^3)_p\text{C}(\text{O})\text{NH}-$ ,  ~~$-(\text{CR}^2\text{R}^3)_p\text{NH}-$~~ ,  ~~$-\text{C}(\text{O})(\text{CR}^2\text{R}^3)_p\text{NH}-$~~ ,  ~~$-\text{C}(\text{O})\text{C}(\text{O})\text{NH}-$~~  or  ~~$-\text{C}(\text{O})(\text{CR}^2\text{R}^3)_p-$~~ , wherein p is a number from 1 to 3 and when p is more than 1, each  $(\text{CR}^2\text{R}^3)$  can be the same or different;

n is 0, ~~2 or 3~~, and when n is 0, such that no connecting bond exists between the two carbons adjacent to the nitrogen;

r is 1, ~~a number from 0 to 1~~ and when r is 0, X is directly linked to the aromatic ring;

Ar is aryl, ~~heteroaryl~~, or  $\text{R}^6$ -substituted aryl or  ~~$\text{R}^6$ -substituted heteroaryl~~;

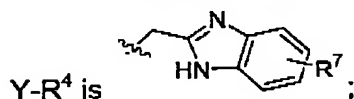
$\text{R}^1$  is hydrogen, -alkyl, -cycloalkyl, aralkyl, heterocyclyl, heteroaralkyl,  $-\text{C}(\text{O})\text{R}^5$ ,  $-\text{C}(\text{O})\text{OR}^5$ ,  $-\text{C}(\text{O})\text{NR}^8\text{R}^9$ ,  $-\text{SO}_2\text{R}^5$ ,  $-\text{SO}_2\text{NR}^8\text{R}^9$ , aryl, heteroaryl,  $-\text{CF}_3$ , -alkyl substituted with  $\text{R}^{10}$ , -cycloalkylalkyl, -cycloalkylalkyl substituted with  $\text{R}^{10}$  on the cycloalkyl ring,



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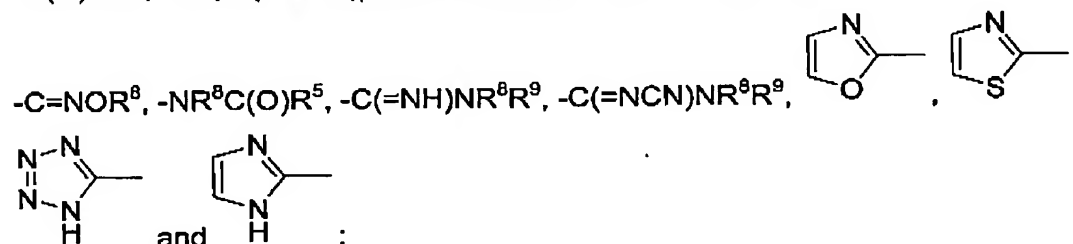
$R^2$  and  $R^3$  can be the same or different, each being independently hydrogen or -alkyl; or  $R^2$  and  $R^3$  can be joined together with the carbon to which they are attached to form a 3 to 7-membered ring;

$R^4$  is aryl, heteroaryl,  $R^7$ -substituted aryl,  ~~$R^7$ -substituted heteroaryl~~ or



$R^5$  is -alkyl, aryl, aralkyl or heteroaryl;

$R^6$  is 1 to 5 substituents, each  $R^6$  can be the same or different and each is independently selected from the group consisting of -OH, -alkoxy, -OCF<sub>3</sub>, -CN, -alkyl, halogen, -NR<sup>8</sup>R<sup>9</sup>, -C(O)NR<sup>8</sup>R<sup>9</sup>, -NR<sup>8</sup>SO<sub>2</sub>R<sup>5</sup>, -SO<sub>2</sub>NR<sup>8</sup>R<sup>9</sup>, -SO<sub>2</sub>R<sup>5</sup>, -C(O)R<sup>5</sup>, -C(O)OR<sup>5</sup>, -CF<sub>3</sub>, -(CR<sup>2</sup>R<sup>3</sup>)<sub>p</sub>NR<sup>8</sup>R<sup>9</sup> where p is a number from 1 to 3, -CHO,



$R^7$  is hydrogen or 1 to 4 substituents, each  $R^7$  can be the same or different and each is independently selected from the group consisting of -OH, -alkoxy, -OCF<sub>3</sub>, -CN, halogen, -nitro, -NR<sup>8</sup>R<sup>9</sup>, -NR<sup>8</sup>C(O)R<sup>5</sup>, -C(O)NR<sup>8</sup>R<sup>9</sup>, -NR<sup>8</sup>SO<sub>2</sub>R<sup>5</sup>, -SO<sub>2</sub>NR<sup>8</sup>R<sup>9</sup>, -SO<sub>2</sub>R<sup>5</sup>, -C(O)R<sup>5</sup>, -C(O)OR<sup>8</sup>, -CF<sub>3</sub>, -(CR<sup>2</sup>R<sup>3</sup>)<sub>p</sub>NR<sup>8</sup>R<sup>9</sup>, -(CR<sup>2</sup>R<sup>3</sup>)<sub>p</sub>NR<sup>8</sup>C(O)R<sup>5</sup> where p is a number from 1 to 3, -C(=NH)NR<sup>8</sup>R<sup>9</sup>, -C(=NCN)NR<sup>8</sup>R<sup>9</sup> and -CHO; or two adjacent  $R^7$  groups can be joined together to form a methylenedioxy or ethylenedioxy group;

$R^8$  is hydrogen or -alkyl;

$R^9$  is hydrogen, -alkyl, aryl, substituted aryl, heteroaryl or aralkyl;

and

$R^{10}$  is -OH, -alkoxy, -cycloalkyl, -cycloalkylalkyl, -C(O)NR<sup>8</sup>R<sup>9</sup>, -NR<sup>8</sup>R<sup>9</sup>, -NR<sup>8</sup>SO<sub>2</sub>R<sup>5</sup>, -NR<sup>8</sup>C(O)R<sup>5</sup>, -NR<sup>8</sup>C(O)OR<sup>5</sup>, -NR<sup>8</sup>C(O)NR<sup>8</sup>R<sup>9</sup>, -C(O)OH or -C(O)OR<sup>5</sup>.

2. (amended) The compound of claim 1 wherein  
X is -SO<sub>2</sub>-;

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~~Y is  $\text{C}(\text{R}^2\text{R}^3)_n\text{C}(\text{O})\text{NH}-$ ;~~

~~R<sup>2</sup> and R<sup>3</sup> are hydrogen or alkyl;~~

~~and~~

~~n is 0;~~

~~and~~

~~r is 0.~~

3. (original) The compound of claim 2 wherein R<sup>2</sup> and R<sup>3</sup> are hydrogen.

4. (amended) The compound of claim 1 wherein

X is carbonyl;

~~Y is  $\text{C}(\text{R}^2\text{R}^3)_n\text{C}(\text{O})\text{NH}-$ ;~~

~~R<sup>2</sup> and R<sup>3</sup> are hydrogen or alkyl;~~

~~and~~

~~n is 0;~~

~~and~~

~~r is 0.~~

5. (original) The compound of claim 4 wherein R<sup>2</sup> and R<sup>3</sup> are hydrogen.

6. (amended) The compound of claim 1 wherein

X is -CH<sub>2</sub>-;

~~Y is  $\text{C}(\text{R}^2\text{R}^3)_n\text{C}(\text{O})\text{NH}-$ ;~~

R<sup>1</sup> is hydrogen, -alkyl, -cycloalkyl, -cycloalkylalkyl, heteroaralkyl, heterocycdyl,  
-alkyl substituted with -cycloalkyl, -alkyl substituted with R<sup>10</sup>, -SO<sub>2</sub>NR<sup>8</sup>R<sup>9</sup>, -SO<sub>2</sub>R<sup>5</sup>;  
-C(O)R<sup>5</sup> or -C(O)OR<sup>5</sup>;

R<sup>2</sup> and R<sup>3</sup> are hydrogen or alkyl;

n is 0;

~~r is 1;~~

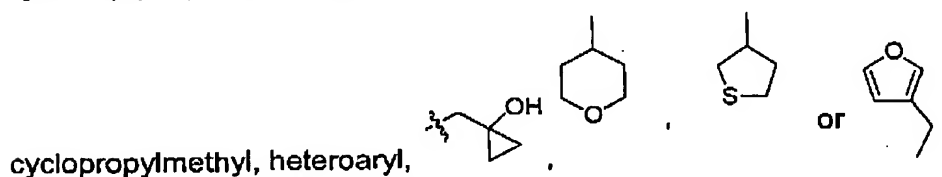
and

Ar is aryl or R<sup>6</sup>-substituted aryl.

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7. (original) The compound of claim 6 wherein

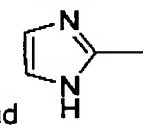
$R^1$  is hydrogen, methyl, ethyl, hydroxyethyl, cyclobutyl, cyclopentyl, cycloheptyl, -propyl,  $-\text{SO}_2\text{CH}_3$ ,  $-\text{SO}_2\text{N}(\text{CH}_3)_2$ ,  $-\text{COCH}_3$ ,  $-\text{C}(\text{O})\text{OC}(\text{CH}_3)_3$ , isopropyl,



$R^2$  and  $R^3$  are hydrogen;

Ar is  $R^6$ -substituted aryl;

$R^6$  is 1 to 5 substituents which can be the same or different and each is independently selected from the group consisting of halogen,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{CN}$ ,

$-\text{CHO}$ ,  $-\text{SO}_2\text{R}^5$ ,  $-\text{C}(\text{O})\text{OR}^6$ ,  $-\text{C}(\text{O})\text{R}^5$ ,  $-\text{C}(\text{O})\text{NR}^6\text{R}^9$  and  ;  
and

$R^7$  is two substituents which can be the same or different and independently selected from halogen,  $-\text{CN}$  and  $-\text{CF}_3$ .

8. (original) The compound of claim 7 wherein  $R^6$  is one substituent.

9. (original) The compound of claim 8 wherein  $R^6$  is at the meta position of Ar.

10. (original) The compound of claim 9 wherein  $R^6$  is  $-\text{CN}$ .

11. (original) The compound of claim 9 wherein  $R^6$  is  $-\text{C}(=\text{NH})\text{NHAr}$  or  $-\text{C}(=\text{NH})\text{NH}_2$ .

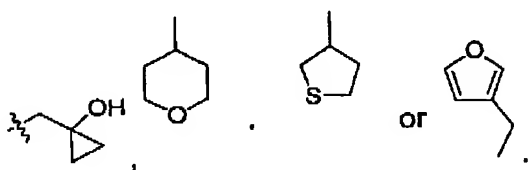
12. (original) The compound of claim 10 wherein  $R^7$  is selected from the group consisting of Cl, F and  $-\text{CF}_3$ .

13. (original) The compound of claim 1 wherein  $R^1$  is hydrogen, methyl, ethyl, hydroxyethyl, cyclobutyl, cyclopentyl, cycloheptyl, -propyl,  $-\text{SO}_2\text{CH}_3$ ,  $-\text{SO}_2\text{N}(\text{CH}_3)_2$ ,

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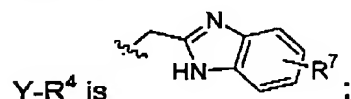
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-COCH<sub>3</sub>, -C(O)OC(CH<sub>3</sub>)<sub>3</sub>, isopropyl, cyclopropylmethyl, heteroaryl,



14. (amended) The compound of claim 1 wherein

X is -CH<sub>2</sub>-;



n is 0;

~~r is 4;~~

Ar is R<sup>6</sup>-substituted aryl;

R<sup>1</sup> is alkyl or cyclopropylmethyl;

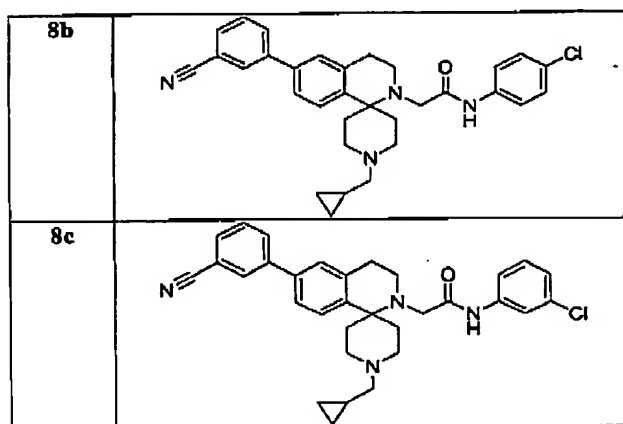
R<sup>6</sup> is -CN and is substituted at the meta position of Ar.

and

R<sup>7</sup> is hydrogen or halogen.

15. (original) The compound of claim 14 wherein R<sup>7</sup> is chloride or fluoride.

16. (original) A compound selected from the group consisting of

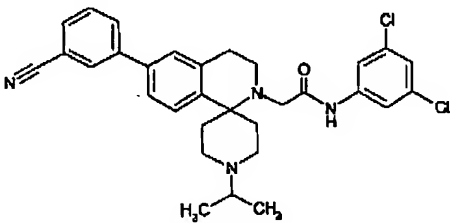
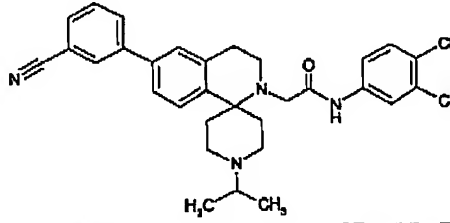
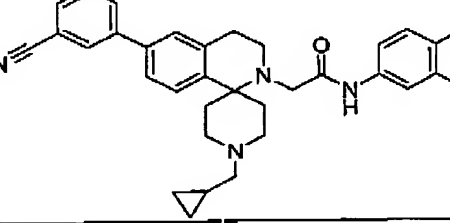
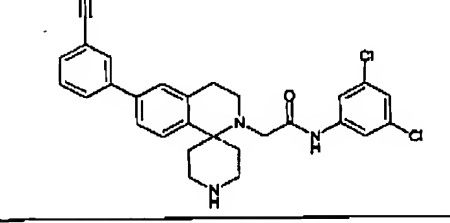
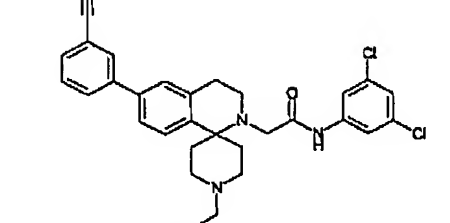


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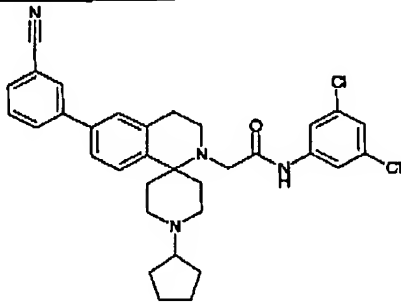
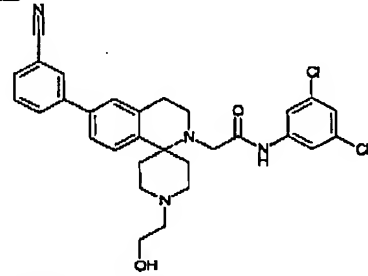
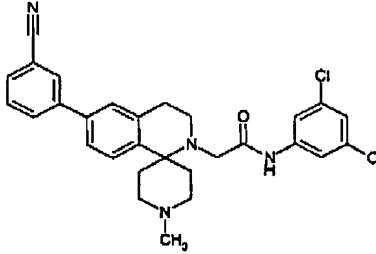
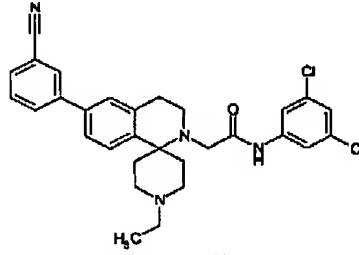
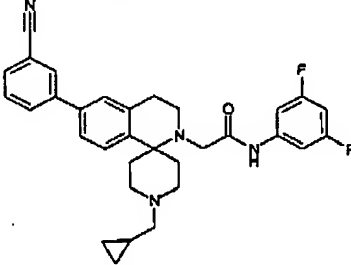
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8d	
8e	
8f	
7d	
7b	
7c	

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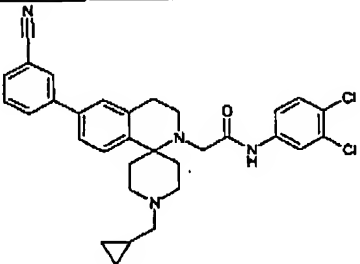
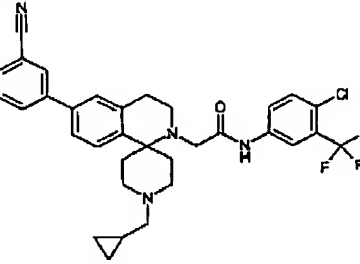
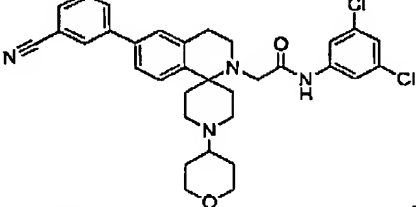
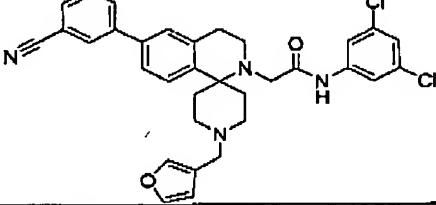
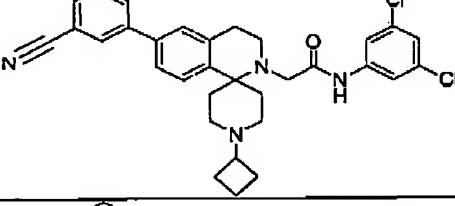
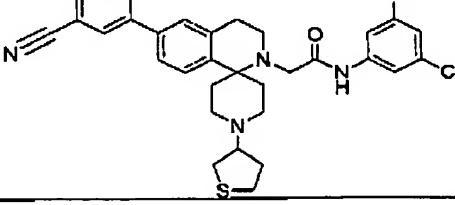
7a	
7e	
8a	
10c	
11c	

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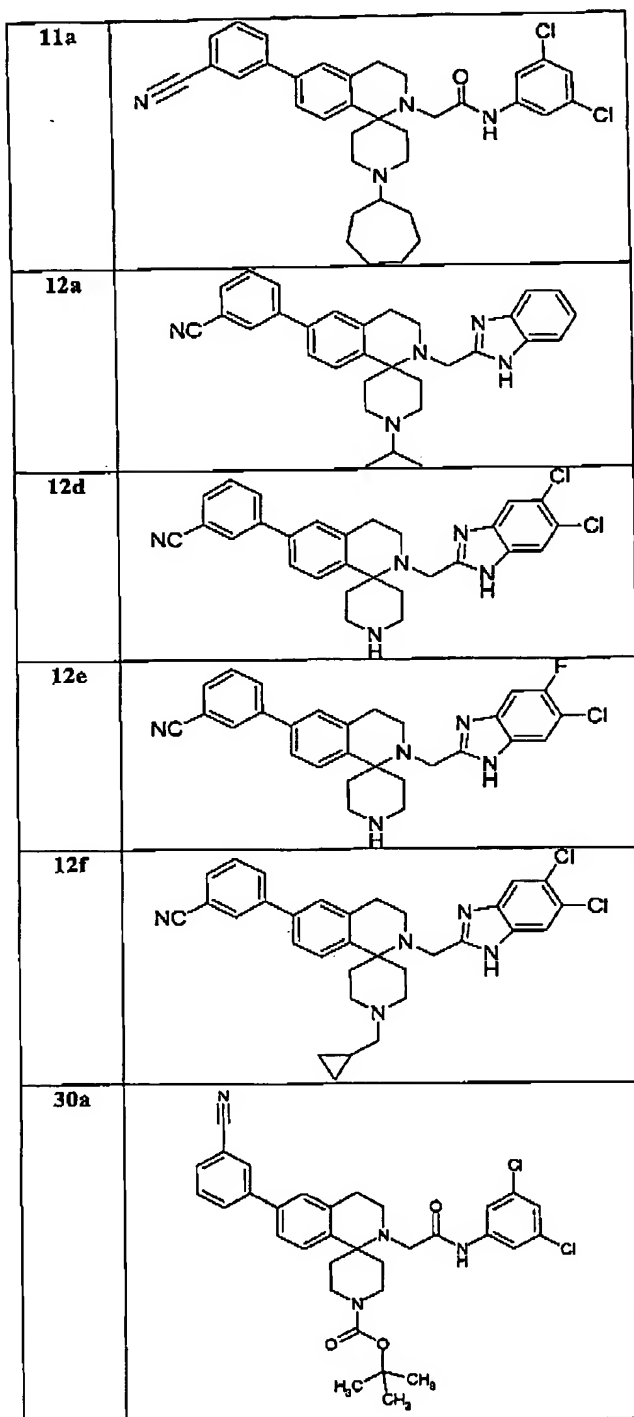
11d	
11e	
11f	
11g	
8g	



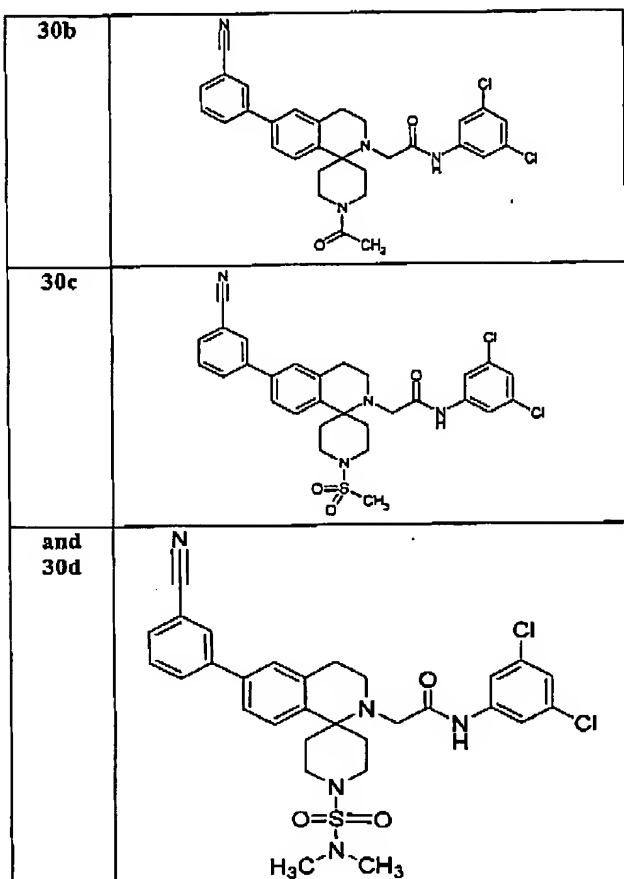
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8h	
8i	
11h	
11i	
11b	
11j	

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or a pharmaceutically acceptable salt or solvate.

17. (original) A pharmaceutical composition comprising a therapeutically effective amount of at least one compound of claim 1 in combination with at least one pharmaceutically acceptable carrier.

18. (amended) A method of treating ~~a metabolic disorder~~ obesity, ~~an eating disorder~~ hyperphagia or diabetes comprising administering a therapeutically effective amount of at least one compound of claim 1 to a patient in need of such treatment.

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19. (amended ) A method of treating ~~an eating disorder~~ hyperphagia comprising administering to a patient in need of such treatment a therapeutically effective amount of at least one compound of claim 1, or a pharmaceutically acceptable salt or solvate of said compound.

20. (original) A pharmaceutical composition comprising a therapeutically effective amount of at least one compound of claim 16 in combination with at least one pharmaceutically acceptable carrier.

21. (amended) A method of treating ~~a metabolic disorder~~ obesity, ~~an eating disorder~~ hyperphagia or diabetes comprising administering a therapeutically effective amount of at least one compound of claim 16 to a patient in need of such treatment.

22. (amended) A method of treating ~~an eating disorder~~ hyperphagia comprising administering to a patient in need of such treatment a therapeutically effective amount of at least one compound of claim 16, or a pharmaceutically acceptable salt or solvate of said compound.

Claims 23-24 (canceled)

25. (original) A method of treating a disorder associated with obesity comprising administering to a patient in need of such treatment a therapeutically effective amount of at least one compound of claim 1, or a pharmaceutically acceptable salt or solvate of said compound.

26. (original) The method of claim 25 wherein said disorder associated with obesity is at least one of type II diabetes, insulin resistance, hyperlipidemia or hypertension.

Claims 27-30 (canceled)